

### REMARKS

Reconsideration of the application is requested in view of the above amendments and the following remarks. Claims 6 and 14 have been amended. Amendments to claims 6 and 14 are supported by the description at page 2, lines 27-30, page 3 generally, and page 4, lines 3-9 of the present specification. Claims 10-12 are cancelled without prejudice or disclaimer. Some of the limitations of claims 10-12 have been added to claim 6. New claims 15-17 have been added and are supported by the description at page 3, lines 9-17 and page 3, lines 23-31 of the present specification. No new matter has been added.

#### Objections and §112 Rejections

Claim 11 has been canceled without prejudice or disclaimer, rendering the objection to claim 11 moot.

Claims 6-13 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claim 13 was canceled previously, rendering this rejection moot. Applicant addresses this rejection to the extent it may apply to claim 14. Clarification of the rejection is requested.

Claim 6 has been amended to replace the limitation related to the adjustable pipe head varying a thickness of the melt column with the limitation, "wherein the vacuum chamber in conjunction with the adjustable pipe head control the melt column thickness."

The present specification recites the following at page 2, lines 27-30:

The whole production line can be automatically controlled through settings controlled, for example, by the size of the pipe widened in the vacuum suction bell; that is to say, through the prescription of a setting, for example, inside the vacuum suction bell, all of the other calibrating-support and -sealing equipment fitting the outside diameter of the pipe is also set.

The calibrating station 3, vacuum calibrating bath 4, and vacuum seal 9 described at pages 3-4 of the present specification all support or seal with the outside diameter of the melt column.

Therefore, these features are "calibrating-support and -sealing equipment" that can be "automatically controlled" through a setting such as the "size of the pipe" (see page 2, lines 27-

30. Applicant submits that the specification does provide proper written description of the limitations of claims 6 and 14 and the claims that depend from them.

#### § 103 Rejections

Claims 6, 7, 10 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over GB 2182603 in view of Carlson (U.S. 4,140,460) and Feuerherm (US 4,382,766). Applicant respectfully traverses this rejection.

GB '603, Carlson and Feuerherm fail to disclose or suggest automatically controlling a calibrating station, a vacuum calibrating bath, and an adjustable vacuum seal based on a predetermined diameter of the melt column, as required by claim 6. At best Carlson discloses some control of a vacuum condition based on a measurement of the pipe outer diameter by tube diameter sensors 21. However, none of these reference, alone or in combination, disclose or suggest the automatic control of other features such as a calibrating station, a vacuum calibrating bath, or a vacuum seal based on a predetermined outer diameter of the melt column. Therefore, GB '603, Carlson and Feuerherm fail to disclose or suggest every limitation of claim 6 and the claims that depend from it.

Furthermore, GB '603 and Carlson fail to disclose or suggest an adjustable pipe head. Feuerherm merely discloses a passage 72 having a variable width at an outlet 70, and fails to provide any disclosure or suggestion of using the adjustable opening to vary or assist in varying a thickness of an extruded melt column according to the limitation, "wherein the vacuum chamber in conjunction with the adjustable pipe head control the melt column thickness," as required by claim 6. Without such a disclosure or suggestion, claim 6 is allowable for this additional reason.

Claims 8 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over GB '603 in view of Carlson and Feuerherm, and further in view of Sweeney (US 4,355,966). Applicant respectfully traverses this rejection. As discussed above, GB '603, Carlson and Feuerherm fail to disclose or suggest every limitation of claim 6. Sweeney fails to remedy the deficiencies of these references as they relate to claim 6. Therefore, claims 8 and 9 are allowable for at least the reason they are dependent upon an allowable base claim. Applicant does not otherwise concede the correctness of this rejection.

Claims 8 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over GB '603 in view of Carlson, and further in view of Sweeney (US 4,355,966). Applicant respectfully traverses this rejection. As discussed above, GB '603 and Carlson fails to disclose or suggest every limitation of claim 6. Sweeney fails to remedy the deficiencies of GB '603 and Carlson as they relate to claim 6. Therefore, claims 8 and 9 are allowable for at least the reason they are dependent upon an allowable base claim. Applicant does not otherwise concede the correctness of this rejection.

Claims 12 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over GB '603 in view of Carlson and Feuerherm, and further in view of Loe et al. (US 4,750,873). Applicant respectfully traverses this rejection. Claims 12 and 13 has been canceled, rendering this rejection moot as to that claim. Applicant will address this rejection to the extent it may apply to claims 1 and 14.

As discussed above, GB '603, Carlson and Feuerherm fail to disclose or suggest every limitation of claim 6. Loe discloses a flexible collar 10 having an internal diameter surface that flexes to fit different sizes of pipe 11. The collar 10 is not "automatically adjustable based on the predetermined diameter," as required by claim 6, or "automatically controlled based on the predetermined outer diameter setting of the melt column," as required by claim 14. The size of collar 10 only varies based on the size of the pipe passing through it and is not sized based on a predetermined outer diameter setting. Furthermore, Loe fails to disclose or suggest automatic control of other features such as a calibrating station, a vacuum calibrating bath, and a vacuum scal. Therefore, Loe fails to remedy the deficiencies of GB '603, Carlson and Feuerherm as they relate to claims 6 and 14. Withdrawal of the rejection is respectfully requested.

#### New claims


New claims 15-17 are dependent claims directed to "support rollers" of the vacuum calibrating bath (claims 15 and 16) and to the thickness of the melt column being controlled by the vacuum chamber in conjunction with the adjustable pipe head (claim 17). Consideration and allowance of new claims 15-17 is respectfully requested.

In view of the above, Applicant requests reconsideration of the application in the form of a Notice of Allowance. If a phone conference would be helpful in resolving any issues related to this matter, please contact Applicant's representative below at 612.371.5265.

Respectfully submitted,

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